

Docket No.: 7724-NES

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REMARKS

This in reply to the Office Action mailed on October 20, 2004 ("Office Action").

Claims 1-17 are currently pending.

Claims 1-17 are rejected under 35 U.S.C. § 103(a) over N. Zaki, A. M. Al-Sabagh, "De-emulsifiers for water-in-crude oil-emulsions", Carl Hanser Verlag, München, Tenside Surf. Det. 34, 12-17 (1997) ("Zaki").

Claim 8 is amended to correct an error. Support for this amendment is found in the specification at page 5, lines 14-18.

No new matter is added by this amendment.

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DISCUSSIONThe Rejection of Claims 1-17 under 35 U.S.C. § 103(a) over Journal Article titled "De-emulsifiers for water-in-crude oil-emulsions"

Claims 1-17 are rejected under 35 U.S.C. § 103(a) over N. Zaki, A. M. Al-Sabagh, "De-emulsifiers for water-in-crude oil-emulsions", Carl Hanser Verlag, München, Tenside Surf. Det. 34, 12-17 (1997) ("Zaki"). In particular, the Examiner states:

The reference discloses a condensation reaction of one mole of alkylphenol (nonyl or dodecyl), 1.2 mole p-formaldehyde and one mole polyalkylenepolyamine to form polyalkylphenols-polyalkylenepolyamine-formaldehyde products (see page 12, 2.1.1 Condensation and in Table 1).

The reference further discloses said products with alkylene oxides such as polyethylene oxide to form the final product (see page 13, 2.1.2 ethoxylation).

The disclosure of the reference differs from the instant claims in that it does not disclose the claimed molar equivalent of formaldehyde nor alkylene oxides to form the product of the claimed formula in claim 9.

However, the reference does disclose the requirements to form the product, an alkoxyated alkylphenol-formaldehyde-diamine polymers and their use as de-emulsifiers for water-in-crude oil emulsions. Therefore, it would have been obvious to one of ordinary skill in the art to modify the molar equivalent of formaldehyde and alkylene oxide from the reference within the limitations of the instant claims to form the products of the claimed formula since they have been shown to be effective in a similar system and thus would have been expected to provide adequate results. There is no showing of unexpected results derived from said modification.

Office Action at pages 2-3.

Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the polyalkylphenol-polyalkylenepolyamides-formaldehyde ethoxylates of Zaki are prepared by reaction of one mole of polyalkylphenol-polyalkylenepolyamides-formaldehyde polymer with one mole of polyethylene glycol (page 13, paragraph 2.1.2) resulting in a polymer having the structure shown at page 14, Fig. 1 where by design alkoxylation occurs solely on the phenolic oxygen atom.

In contrast, the alkoxyated alkylphenol-formaldehyde-diamine polymer of this invention is prepared by reacting an alkylphenol-formaldehyde-diamine polymer with an excess of alkylene oxide

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(rather than one molar equivalent of a defined polyethylene glycol) resulting in a polymer in which the phenolic oxygen atoms and the amine nitrogen atoms are alkoxylated with polyalkylene groups of varying length. Compare the structure shown in Applicant's specification at page 5 and claim 9 with Fig. 1 of Zaki.

Applicant respectfully asserts nothing in Zaki teaches or suggests replacing the single molar equivalent of polyethylene glycol disclosed therein with at least a five-fold molar excess of alkylene oxide to thereby prepare a structurally different polymer, or that such a polymer would have a similar profile of activity. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-17 under 35 U.S.C. § 103(a) over Zaki.

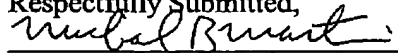
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CONCLUSION

In view of the foregoing amendment and remarks, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a) and respectfully assert that this application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully Submitted,



Michael B. Martin, Reg. No. 37,521

Nalco Company

Patent & Licensing Department

1601 W. Diehl Road

Naperville, IL 60563-1198

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